

**WHAT IS CLAIMED IS:**

1. A content recording apparatus, comprising:

a designator for designating in the order from a reference data file a plurality of data files;

5 a data writer for writing content data into the data file designated by said designator;

an information writer for writing into a non-volatile storing area file information that identifies the data file designated by said designator at each time that a designation of said designator is updated, wherein said reference data file is a data file specified by the latest file information stored in said non-volatile storing area.

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2. A content recording apparatus according to claim 1, further comprising:

a marker writer for writing a marker into said non-volatile storing area at a time of ending a writing operation by said data writer;

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a determiner for determining whether or not said marker exists in said non-volatile storing area before starting the writing operation by said data writer;

a detector for detecting a data discontinued point from said reference data file when a determination result of said determiner is negative; and

a determiner for determining a writing starting location on said reference data file based on the data discontinued point detected by said detector.

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3. A content recording apparatus according to claim 2, wherein said content data includes moving image data having a plurality of frames of an image, and index data that manages each of said plurality of frames, and each of said plurality of data files includes a moving image file that stores said moving image data, and an index file that stores said index data.

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4. A content recording apparatus according to claim 3, wherein said index data

includes time information indicating a time at which each of said plurality of frames of an image has been obtained, and said detector detects said data discontinued point based on said time information.

5 5. A content recording apparatus according to claim 2, wherein said plurality of frames of an image include a first encoded image to which an intra-encoding is applied, and a second encoded image to which an inter-encoding is applied, and said determiner determines as said writing starting location a location that precedes said data discontinued point and in which said first encoded image exists.

10 6. A content recording apparatus according to claim 5, further comprising a buffer for temporarily holding said content data prior to the writing operation by said data writer, wherein said determiner determines said writing starting location taking into consideration a capacity of said buffer.

7. A content recording apparatus according to claim 1, wherein said plurality of data files have the same capacity to each other.

15 8. A content recording method, comprising the steps of:

(a) designating in the order from a reference data file each of a plurality of data files each of which has a predetermined capacity;

(b) writing content data into the data file designated by said step (a);

20 (c) writing into a non-volatile storing area file information that identifies the data file designated by said step (a) at each time that a designation of said step (a) is updated, wherein said reference data file is a data file specified by the latest file information stored in said non-volatile storing area.

9. A content recording method, comprising:

25 a recorder for recording into a recording medium content data formed of a plurality of partial contents;

a creator for creating index data including location information indicating a location of each of said plurality of partial contents, and time information indicating a time at which each of said plurality of partial contents has been obtained;

5 a detector for detecting a temporal discontinuing point of said index data based on said time information before a recording operation by said recorder is started; and

a first determiner for determining a location of starting recording said content data based on the temporal discontinuing point detected by said detector.

10. A content recording apparatus according to claim 9, further comprising:

10 a marker writer for writing a marker into a non-volatile storing area at a time of ending a recording operation by said recorder; and

a determiner for determining whether or not said marker exists in said non-volatile storing area when a power is input, wherein said detector detects said temporal discontinuing point when a determination result of said determiner is negative.

11. A content recording apparatus according to claim 10, further comprising:

15 an information writer for writing into said non-volatile storing area location information indicating an ending location of said recording operation; and

a second determiner for determining a location for starting recording said content data based on the location information written in said non-volatile storing area when the determination result of said determiner is affirmative.

20 12. A content recording apparatus according to claim 9, wherein said content data is moving image data having a plurality of frames of an image, each of said plurality of partial contents includes one of a first encoded image to which an intra-encoding is applied, and a second encoded image to which an inter-encoding is applied, and said first determiner determines as a recording starting location a head of the partial content  
25 including said first encoded image recorded in said recording medium.

13. A content recording apparatus according to claim 9, wherein a plurality of data files are formed in said recording medium, and said recorder sequentially records said content data into said plurality of data files.

14. A content recording method, comprising the steps of:

5 (a) recording into a recording medium content data formed of a plurality of partial contents;

(b) creating index data including location information indicating a location of each of said plurality of partial contents, and time information indicating a time at which each of said plurality of partial contents has been obtained;

10 (c) detecting a temporal discontinuing point of said index data based on said time information before a recording operation of said step (a) is started; and

(d) determining a location of starting recording said content data based on the temporal discontinuing point detected in said step (c).